## **ABSTRACT**

An air compressor includes a base having an opening to receive a bearing, an eccentric member having a shaft rotatably secured to the base with the bearing and having an eccentric pin, and a cylinder having a piston rod rotatably coupling to the eccentric pin. A gear is attached to the eccentric member and rotated in concert with the eccentric member, and a motor is secured to the base and includes a pinion engaged with the gear to rotate the gear and the eccentric member relative to the base. The gear and the eccentric member may be rotated in great speeds by the motor, and may be stably and smoothly secured to the base with the bearing.

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